the aeration tank or the location can be more compact or compact only in separate places. A great value for the aeration tank operating mode will take place the arrangements of loading, namely, its location at the beginning of the aeration tank or at the end of it.

Thus, under modern conditions development of new methods for management of sewage treatment works to provide maximum efficiency of aerobic biological sewage treatment is very important.

METHODS OF DEVELOPMENT OF BLOCK URBAN TYPE SETTLEMENTS IN BIG AND MAJOR CITIES OF UKRAINE

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The relevance of the study is proved by the solution of urban problems and formation of the architectural environment of urban-type settlements taking into account the need for their harmonization in new conditions.

Besides, the relevance of the study is supported by the psychological factors. Among the positive characteristics of living in low-rise areas a highly developed engineering infrastructure should be mentioned.

In this regard, the concept was formed, that the development of block settlements has a particular investment attractiveness, provides a wide field of creativity for today's designers and stimulates a high consumer interest in this product of urban housing.

The hypothesis of the research:

On the basis of the theoretical works, the concept was formed for the development of block urban-type settlement for big and major cities of Ukraine.

Analysis of the works on the theory of settlements designing proved that, despite of the elaboration of the related branch of science, the system of categories is still underdeveloped.

The need for development of blocks of houses has the following economic, social, architectural and urban planning reasons:

- the desire of many citizens to have a separate house with a plot of land, but a lack of financial opportunity to own a private single-family house. Block houses provide such an opportunity at a lower price;
- cost effectiveness;
- density of development;
- availability of a small plot of land.

The purpose of the study is to develop a block urban type settlement on the basis of historical experience and current requirements.

Accordingly, the following tasks were set:

1) to make a retrospective analysis of the methods for development of urban-type settlements (the concept of "Town House")

2) to explore the social dynamics of residential areas development;

3) to analyze the parameters and functional-planning bases of block urban type settlement development;

4) to identify the main requirements;

5) to suggest models for design solution.

The scientific novelty of the study is that the modern city block is considered on the basis of the changed socio-economic situation in the country.

The practical significance lies in the recommendations aimed at improving the living conditions in the block residential buildings of modern urban-type settlements.

It should be mentioned that low-rise urban development is based on 2-4 (5) storey houses with different planning structure: cottages for one or two families, block and section buildings and houses of combined planning structure. According to the level of density, this type of development can be divided into a traditional low-rise cottage or block development, development of high density (more than 15% higher than for the corresponding norms for mid-rise settlement) and a high-density low-rise settlement development (with the density level 25-30 % higher than the specified one for the respective mid-rise area). The size of the territory and the number of the apartments in the block of low-rise houses immediate depend on the specific space-dimensional solution of every of the types. The low-rise cottage development has free standing building placed in the space volume. A social and territorial community can be defined as a group of houses in the territory bounded by the length of the dead-end passage (100-150 m) and located within a comfortable walking distance to the children's playground or adjoining space of general use. The analysis of the foreign experience shows that such groups in the settlement development consist of 5-30 houses with the population of between 25 and 150 people.

As for the dimensional-spatial part of the development, it should be noted that residential districts development was based on typical model projects of residential, public and industrial buildings. The main problem of such a development is the lack of "proper consideration of urban and landscape features of the specific areas", as well as a possible little or a sufficient distance from the industrial enterprises.

It should be highlighted that blocks of houses can have various combinations of blocks:

a) single-row - the simplest and most common type of the block;

b) two-row block;

c) single-row block with a shift;

d) block with household buildings between the residential blocks;

e) cross-shaped block, used in order to increase the development density;

e) L-shaped block of apartments with inward yards;

f) compact L-shaped block of apartments;

h) loose or "carpet" development.

The architectural and compositional part of the project consists of:

1. Perimeter development.

2. Group development.

3. Ribbon development.
4. Free development.
5. Combined development.

Energy-efficient space-planning decisions of residential buildings are provided by:

- reduction in the surface area of the exterior walls by reducing the amount of irregularity of the building;
- increasing the width of the construction taking into account the regulatory requirements for illumination of premises;
- increasing the length of the building considering the urban development situations;
- increasing of the total area of the apartments on the floor considering the fire safety requirements;
- using planning elements that enhance the thermal efficiency of the residential building (including the use of blanket with smoke stairwells of H2 or H3 types and the usual staircase of A2 type with an overhead lighting).

Providing of the energy efficiency of multi-block buildings using the output area widening on the floor section is recommended for the following structures:

- residential buildings with straight or turning ordinary sections;
- residential buildings with latitude T-shaped sections;
- corner sections;
- latitude buildings;
- extended meridional buildings (including those with slight shift in the plan).

Conclusions:

The study identified a need for block houses in the developments of residential buildings, which is proved by economic, social, architectural and town-planning reasons.

On the basis of the concepts, a detailed study has been made, namely, a retrospective analysis of the methods for development of urban-type settlements (the concept of "Town House"), the social dynamics of the development of the residential areas; parameters and functional-planning bases of block development forming; the general requirements as well as the project design models.

APPLICATION OF MEMBRANE TECHNOLOGIES FOR CONCENTRATED SEWAGE TREATED

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A source formation of the concentrated sewage are the enterprises easy (tanning, textile), the food-processing industry (meat-processing, oil - fatty, dairy), and also the enterprises of the heavy industry (galvanic manufacture, etc.).

It is necessary to notice, that all named sewage have the common features sharp negative influence on an environment, multicomponent structure (the raised